In the Specification

At page 1, after the title, please insert the following paragraph:

---RELATED APPLICATIONS

This application is a continuation of U.S. Application No. 08/709,838, filed September 10, 1996.---

In the Claims

Please cancel Claims 1-29, 50, and 53-59, amend Claims 30, 32-34, 38-44, 46, 48, 49, 51 and 52, and add new Claims 60-92 as follows:

30. (Amended) A method of detecting or identifying an agent which binds a mammalian CXC Chemokine Receptor 3 (CXCR3) [CXCR3] protein or ligand binding variant thereof, comprising combining an agent to be tested with a composition comprising an isolated and/or recombinant mammalian CXCR3 protein or ligand binding variant thereof under conditions suitable for binding of ligand thereto, and detecting or measuring the formation of a complex between said agent and said mammalian CXCR3 protein or variant, wherein said protein or ligand binding variant can selectively bind at least one chemokine selected from the group consisting of IP-10 and Mig, and wherein said variant shares at least about 80% amino acid sequence identity with SEQ ID NO:2.

32. (Amended) The method of Claim 31, wherein the ligand is labeled with a label selected from the group consisting of a radioisotope, spin label, antigen label, enzyme label, flourescent group or [chemiluminesent] chemiluminescent group.

33. (Amended) The method of Claim [31] 30, wherein the assay is a competition assay, in which binding is determined in the presence of one or more ligands selected from the roup consisting of human IP-10, human Mig, a mammalian homolog of IP-10, and a mammalian homolog of Mig.

34. (Amended) A method of detecting or identifying an agent which binds a mammalian CXCR3 protein or a ligand binding variant thereof comprising:

a) combining an agent to be tested with a host cell expressing recombinant mammalian CXCR3 protein or a ligand binding variant thereof under conditions suitable for binding of ligand thereto; and

b) detecting or measuring the formation of a complex between said agent and the mammalian CXCR3 protein or a ligand binding variant,

wherein said protein or ligand binding variant can selectively bind at least one chemokine selected from the group consisting of IP-10 and Mig, and wherein said variant shares at least about 80% amino acid sequence identity with SEQ ID NO:2.

38. (Amended) A method of detecting or identifying an inhibitor of ligand binding to a mammalian CXCR3 protein or a ligand binding variant thereof comprising:

a) combining an agent to be tested with a ligand of said mammalian CXCR3 protein and a composition comprising isolated and/or recombinant mammalian CXCR3 protein or ligand binding variant thereof under conditions suitable for binding of ligand thereto; and

b) detecting or measuring [binding] the formation of a complex between said mammalian CXCR3 protein or variant and said ligand, whereby inhibition of complex formation by the agent is indicative that the agent is an inhibitor,

wherein said protein or ligand binding variant can selectively bind at least one chemokine selected from the group consisting of IP-10 and Mig, and wherein said variant shares at least about 80% amino acid sequence identity with SEQ ID NO:2.

39. (Amended) The method of Claim 38, wherein the ligand is selected from the group consisting of human IP-10, human Mig, a mammalian homolog of IP-10, and a mammalian homolog of Mig.

40. (Amended) The method of Claim 38, wherein the composition comprising isolated and/or recombinant mammalian CXCR3 protein or ligand binding variant thereof contains a host cell expressing recombinant mammalian CXCR3 protein or a ligand binding variant thereof.

41. (Amended) The method of Claim 40, wherein the mammalian CXCR3 protein or ligand binding variant thereof can mediate cellular signalling and/or a cellular response, and the formation of a complex is monitored by detecting or measuring a signalling activity or cellular response of said CXCR3 protein or variant in response thereto.

42. (Amended) A method of detecting or identifying an inhibitor of ligand binding to a mammalian CXCR3 protein or ligand binding variant thereof comprising:

a) combining an agent to be tested with a ligand of said mammalian CXCR3 protein and a host cell expressing a recombinant mammalian CXCR3 protein or ligand binding variant thereof under conditions suitable for binding of ligand thereto; and

b) detecting or measuring [binding] the formation of a complex between said protein or variant and said ligand, whereby inhibition of complex formation by the agent is indicative that the agent is an inhibitor,

wherein said protein or ligand binding variant can selectively bind at least one chemokine selected from the group consisting of IP-10 and Mig, and wherein said variant shares at least about 80% amino acid sequence identity with SEQ ID NO:2.

43. (Amended) The method of Claim 42, wherein the ligand is selected from the group consisting of IP-10, Mig, a mammalian homolog of IP-10, and a mammalian homolog of Mig.

44. (Amended) The method of Claim 42, wherein the mammalian CXCR3 protein or ligand binding variant thereof can mediate cellular signalling and/or a cellular response, and the formation of a complex is monitored by detecting or measuring a signalling activity or cellular response of said CXCR3 protein or variant in response thereto.

46. (Amended) A method of detecting or identifying an inhibitor of a mammalian CXCR3 protein or functional variant thereof comprising combining an agent to be tested with

(a) a host cell expressing a recombinant mammalian CXCR3 protein or functional variant thereof, and

(b) a ligand or promoter thereof, under conditions suitable for detecting a ligand- or promoter-induced response, and assessing the ability of the test agent to inhibit said

response, whereby inhibition of a ligand- or promoter-induced response by the agent is indicative that the agent is an inhibitor, wherein said protein or functional variant can selectively bind at least one chemokine selected from the group consisting of IP-10 and Mig, and wherein said variant shares at least about 80% amino acid sequence identity with SEQ ID NO:2.

48. (Amended) A method of detecting or identifying a promoter of a mammalian CXCR3 protein of functional variant thereof comprising combining an agent to be tested with a host cell expressing a recombinant mammalian CXCR3 protein or functional variant thereof under conditions suitable for detecting a receptor-mediated response, and detecting or measuring said response, whereby induction or stimulation of said response by the agent is indicative that the agent is a promoter, wherein said protein or functional variant can selectively bind at least one chemokine selected from the group consisting of IP-10 and Mig, and wherein said variant shares at least about 80% amino acid sequence identity with SEQ ID NO:2.

49. (Amended) An inhibitor of [at least one function characteristic of] a mammalian CXCR3 protein identified according to the method of Claim 38, wherein said inhibitor is an antagonist.

51. (Amended) An inhibitor of [at least one function characteristic of] a mammalian CXCR3 protein identified according to the method of Claim 46, wherein said inhibitor is an antagonist.

52. (Amended) A promoter of [at least one function characteristic of] a mammalian CXCR3 protein identified according to the method of Claim 48, wherein said promoter is an agonist and is other than IP-10 or Mig.

Please add the following claims:

---60. A method of detecting or identifying an inhibitor of ligand binding to a mammalian CXCR3 protein or a ligand binding variant thereof of Claim 38, wherein said variant shares at least about 90% amino acid sequence identity with SEQ ID NO:2.

61. A method of detecting or identifying an inhibitor of ligand binding to a mammalian CXCR3 protein or a ligand binding variant thereof comprising:

a) combining an agent to be tested with a ligand of said mammalian CXCR3 protein and a composition comprising isolated and/or recombinant mammalian CXCR3 protein or a ligand binding variant thereof under conditions suitable for binding of ligand thereto; and

b) detecting or measuring the formation of a complex between said mammalian CXCR3 protein or variant and said ligand, whereby inhibition of complex formation by the agent is indicative that the agent is an inhibitor,

wherein said protein or ligand binding variant can selectively bind at least one chemokine selected from the group consisting of IP-10, Mig, a homolog of IP-10, and a homolog of Mig, and wherein said variant is encoded by a nucleic acid sharing at least about 75% nucleotide sequence similarity with the coding region of the sequence illustrated in SEQ ID NO:1.

62. A method of detecting or identifying an inhibitor of ligand binding to a mammalian CXCR3 protein or a ligand binding variant thereof of Claim 61, wherein said variant is encoded by a nucleic acid sharing at least about 90% nucleotide sequence similarity with the coding region of the sequence illustrated in SEQ ID NO:1.

63. A method of detecting or identifying an inhibitor of a mammalian CXCR3 protein or functional variant thereof of Claim 46, wherein said variant shares at least about 90% amino acid sequence identity with SEQ ID NO:2.

64. A method of detecting or identifying an inhibitor of a mammalian CXCR3 protein or functional variant thereof comprising combining an agent to be tested with

(a) a host cell expressing a recombinant mammalian CXCR3 protein or functional variant thereof, and

(b) a ligand or promoter thereof, under conditions suitable for detecting a ligand- or promoter-induced response, and assessing the ability of the test agent to inhibit said response, whereby inhibition of a ligand- or promoter-induced response by the agent is indicative that the agent is an inhibitor,

wherein said protein or functional variant can selectively bind at least one chemokine selected from the group consisting of IP-10, Mig, a homolog of IP-10, and a homolog of Mig, and wherein said variant is encoded by a nucleic acid sharing at least about 75% nucleotide sequence similarity with the coding region of the sequence illustrated in SEQ ID NO:1.

65. A method of detecting or identifying an inhibitor of a mammalian CXCR3 protein or functional variant thereof of Claim 64, wherein said variant is encoded by a nucleic acid sharing at least about 90% nucleotide sequence similarity with the coding region of the sequence illustrated in SEQ ID NO:1.

66. A method of detecting or identifying a promoter of a mammalian CXCR3 protein or functional variant thereof of Claim 48, wherein said variant shares at least about 90% amino acid sequence identity with SEQ ID NO:2.

67. A method of detecting or identifying a promoter of a mammalian CXCR3 protein or functional variant thereof comprising combining an agent to be tested with a host cell expressing a recombinant mammalian CXCR3 protein or functional variant thereof under conditions suitable for detecting a receptor-mediated response, and detecting or measuring said response, whereby induction or stimulation of said response by the agent is indicative that the agent is a promoter, wherein said protein or functional variant can selectively bind at least one chemokine selected from the group consisting of IP-10, Mig, a homolog of IP-10, and a homolog of Mig, and wherein said variant is encoded by a nucleic acid

sharing at least about 75% nucleotide sequence similarity with the coding region of the sequence illustrated in SEQ ID NO:1.

68. A method of detecting or identifying a promoter of a mammalian CXCR3 protein or functional variant thereof of Claim 67, wherein said variant is encoded by a nucleic acid sharing at least about 90% nucleotide sequence similarity with the coding region of the sequence illustrated in SEQ ID NO:1.

69. A method of detecting or identifying an agent which binds a mammalian CXCR3 protein or ligand binding variant thereof of Claim 30, wherein the CXCR3 protein or variant thereof is a human CXCR3 or ligand binding variant thereof.

70. A method of detecting or identifying an agent which binds a mammalian CXCR3 protein or a ligand binding variant thereof of Claim 34, wherein the CXCR3 protein or variant thereof is a human CXCR3 or ligand binding variant thereof.

71. A method of detecting or identifying an inhibitor of ligand binding to a mammalian CXCR3 protein or a ligand binding variant thereof of Claim 38, wherein the CXCR3 protein or variant thereof is a human CXCR3 or ligand binding variant thereof.

72. A method of detecting or identifying an inhibitor of ligand binding to a mammalian CXCR3 protein or ligand binding variant thereof of Claim 42, wherein the CXCR3 protein or variant thereof is a human CXCR3 or ligand binding variant thereof.

73. A method of detecting or identifying an inhibitor of a mammalian CXCR3 protein or functional variant thereof of Claim 46, wherein the CXCR3 protein or variant thereof is a human CXCR3 or functional variant thereof.

74. A method of detecting or identifying a promoter of a mammalian CXCR3 protein of functional variant thereof of Claim 48, wherein the CXCR3 protein or variant thereof is a human CXCR3 or functional variant thereof.

75. A method of detecting or identifying an inhibitor of ligand binding to a human CXCR3 protein comprising:

a) combining an agent to be tested with a ligand of said CXCR3 protein and a composition comprising recombinant human CXCR3 protein under conditions suitable for binding of ligand thereto; and

b) detecting or measuring the formation of a complex between said CXCR3 protein and said ligand, whereby inhibition of complex formation by the agent is indicative that the agent is an inhibitor, wherein said CXCR3 protein can selectively bind to at least one chemokine selected from the group consisting of human IP-10 or human Mig.

76. The method of Claim 75, wherein the ligand is human IP-10 or human Mig.

77. The method of Claim 75, wherein the wherein the ligand is labeled with a label selected from the group consisting of a radioisotope, spin label, antigen label, enzyme label, flourescent group or chemiluminescent group.

78. The method of Claim 75, wherein the composition comprising recombinant human CXCR3 comprises a membrane fraction of host cells expressing recombinant human CXCR3 protein.

79. The method of Claim 78, wherein the ligand is human IP-10 or human Mig.

80. The method of Claim 79, wherein the ligand is labeled with a label selected from the group consisting of a radioisotope, spin label, antigen label, enzyme label, flourescent group or chemiluminescent group.

81. A method of detecting or identifying an inhibitor of ligand binding to a human CXCR3 protein comprising:

a) combining an agent to be tested with a ligand of said CXCR3 protein and a host cell expressing a recombinant human CXCR3 protein under conditions suitable for binding of ligand thereto; and

b) detecting or measuring the formation of a complex between said protein and said ligand, whereby inhibition of complex formation by the agent is indicative that the agent is an inhibitor, wherein said CXCR3 protein can selectively bind to at least one chemokine selected from the group consisting of human IP-10 or human Mig.

82. The method of Claim 81, wherein the ligand is human IP-10 or human Mig.

83. The method of Claim 81, wherein the wherein the ligand is labeled with a label selected from the group consisting of a radioisotope, spin label, antigen label, enzyme label flourescent group or chemiluminescent group.

84. The method of Claim 81, wherein the human CXCR3 protein can mediate cellular signaling and/or a cellular response, and the formation of a complex is monitored by detecting or measuring a signaling activity or cellular response of said CXCR3 protein in response thereto.

85. A method of detecting or identifying an agent which binds a mammalian CXCR3 protein or ligand binding variant thereof, comprising combining an agent to be tested with a composition comprising an isolated and/or recombinant mammalian CXCR3 protein or ligand binding variant thereof under conditions suitable for binding of ligand thereto, and detecting or measuring the formation of a complex between said agent and said mammalian CXCR3 protein or variant, wherein said protein or ligand binding variant can selectively bind at least one chemokine selected from the group consisting of IP-10, Mig, a homolog of IP-10, and a homolog of Mig, and wherein said variant is encoded by a nucleic acid that hybridizes under high stringency conditions to a nucleic acid selected from the group consisting of:

a) SEQ ID NO:1;

b) a nucleic acid complementary to SEQ ID NO:1; and

c) a portion of a) or b) comprising the open reading frame of SEQ ID NO:1.

86. A method of detecting or identifying an agent which binds a mammalian CXCR3 protein or ligand binding variant thereof of Claim 85, wherein the CXCR3 protein or variant thereof is a human CXCR3 or ligand binding variant thereof.

87. A method of detecting or identifying an inhibitor of ligand binding to a mammalian CXCR3 protein or a ligand binding variant thereof comprising:

a) combining an agent to be tested with a ligand of said mammalian CXCR3 protein and a composition comprising isolated and/or recombinant mammalian CXCR3 protein or a ligand binding variant thereof under conditions suitable for binding of ligand thereto; and

b) detecting or measuring the formation of a complex between said mammalian CXCR3 protein or variant and said ligand, whereby inhibition of complex formation by the agent is indicative that the agent is an inhibitor,

wherein said protein or ligand binding variant can selectively bind at least one chemokine selected from the group consisting of IP-10, Mig, a homolog of IP-10, and a homolog of Mig, and wherein said variant is encoded by a nucleic acid that hybridizes under high stringency conditions to a nucleic acid selected from the group consisting of:

a) SEQ ID NO:1;

b) a nucleic acid complementary to SEQ ID NO:1; and

c) a portion of a) or b) comprising the open reading frame of SEQ ID NO:1.

88. A method of detecting or identifying an inhibitor of ligand binding to a mammalian CXCR3 protein or a ligand binding variant thereof of Claim 87, wherein the CXCR3 protein or variant thereof is a human CXCR3 or ligand binding variant thereof.

89. A method of detecting or identifying an inhibitor of a mammalian CXCR3 protein or functional variant thereof comprising combining an agent to be tested with

(a) a host cell expressing a recombinant mammalian CXCR3 protein or functional variant thereof, and

(b) a ligand or promoter thereof, under conditions suitable for detecting a ligand- or promoter-induced response, and assessing the ability of the test agent to inhibit said response, whereby inhibition of a ligand- or promoter-induced response by the agent is indicative that the agent is an inhibitor.

wherein said protein or functional variant can selectively bind at least one chemokine selected from the group consisting of IP-10, Mig, a homolog of IP-10, and a homolog of Mig, and wherein said variant is encoded by a nucleic acid that hybridizes under high stringency conditions to a nucleic acid selected from the group consisting of:

a) SEQ ID NO:1;

b) a nucleic acid complementary to SEQ ID NO:1; and

c) a portion of a) or b) comprising the open reading frame of SEQ ID NO:1.

90. A method of detecting or identifying an inhibitor of a mammalian CXCR3 protein or functional variant thereof of Claim 89, wherein the CXCR3 protein or variant thereof is a human CXCR3 or functional variant thereof.

91. A method of detecting or identifying a promoter of a mammalian CXCR3 protein or functional variant thereof comprising combining an agent to be tested with a host cell expressing a recombinant mammalian CXCR3 protein or functional variant thereof under conditions suitable for detecting a receptor-mediated response, and detecting or measuring said response, whereby induction or stimulation of said response by the agent is indicative that the agent is a promoter, wherein said protein or functional variant can selectively bind at least one chemokine selected from the group consisting of IP-10, Mig, a homolog of IP-10, and a homolog of Mig, and wherein said variant is encoded by a nucleic acid that hybridizes under high stringency conditions to a nucleic acid selected from the group consisting of:

a) SEQ ID NO:1;

b) a nucleic acid complementary to SEQ ID NO:1; and

c) a portion of a) or b) comprising the open reading frame of SEQ ID NO:1.

92. A method of detecting or identifying a promoter of a mammalian CXCR3 protein of functional variant thereof of Claim 91, wherein the CXCR3 protein or variant thereof is a human CXCR3 or functional variant thereof.---